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## **BGS Abstract Submitted to BGS Spring Conference 29<sup>th</sup> April -1<sup>st</sup> May 2015 Nottingham**

### **CAN PARAMEDICS USE FRAX TO IDENTIFY PATIENTS AT GREATEST RISK OF FUTURE FRACTURE AMONG THOSE WHO FALL? A FEASIBILITY STUDY.**

#### **Authors**

Rachel Bradley<sup>1</sup>, Bethany Simmonds<sup>1</sup>, Rachael Gooberman-Hill<sup>2</sup>, Maria Robinson<sup>3</sup>, Rosemary Greenwood<sup>1</sup>, Elsa Marques<sup>4</sup>, Jonathan Benger<sup>5</sup>, Christopher Salisbury<sup>6</sup>, Lee Shepstone<sup>7</sup>, Shane Clarke<sup>1</sup>

#### **Author Provenance** (Max 70 words)

1 University Hospitals Bristol NHS Foundation Trust,

2 School of Clinical Sciences, University of Bristol,

3 Research and Clinical Audit, South Western Ambulance Service NHS Foundation Trust, Exeter,

4 School of Social and Community Medicine, University of Bristol,

5 Faculty of Health and Applied Sciences, University of West of England,

6 Centre for Academic Primary Care, University of Bristol,

7 Norwich Medical School, University of East Anglia, Norwich

#### **Background:**

The majority of fragility fractures occur in people who fall. However, only a minority of people who fall are assessed for fracture risk.

We hypothesized that paramedics attending such patients could calculate 10-year fracture risk using FRAX and, by informing their GPs, increase assessment and treatment for osteoporosis for those at highest risk of fracture.

#### **Methods:**

This feasibility study aimed to explore and refine issues regarding study design, recruitment, retention, sample size and acceptability to inform a future multicentre randomised control trial.

Volunteer paramedics were trained regarding osteoporosis, falls and FRAX. Patients  $\geq 50$  years who fell were attended by paramedics. Once stabilised, they (or their carers if they lacked capacity) provided verbal consent to answer FRAX questions and subsequent contact by a researcher.

Patients were formally recruited by the researcher and randomised to the intervention (FRAX calculation and advice sent to GPs) or usual care. The target recruitment was 50 participants per group.

#### **Results:**

23 paramedics verbally consented 175/1447(12.1%) patients who fell over a 12 month recruitment period. 53/175(30%) progressed to formal recruitment. The average age was 81 years (57-98), 51% women.

The median number falls per patient reported in previous year was 3.0. Prior fragility fracture was reported by 23/53 (43%). The median FRAX risk of hip fracture was 7.6% over 10years (>5% in 37/53 70%). 28/53 (53%) of patients were at intermediate/high risk (according to NOGG criteria). Only 9/28 had ever taken osteoporosis medication.

Qualitative work suggested that the intervention was acceptable to most patients, carers, GPs and paramedics. However, recruitment was challenging, with paramedics and patients identifying the difficulties of consent in the context of a fall. GPs highlighted the complexities of fracture prevention advice in patients with comorbidities.

### **Conclusion:**

This feasibility study suggested that the intervention was acceptable, but highlighted some challenges in recruiting patients in this setting that can be addressed in future work. The calculated FRAX fracture risk was high in this patient group which supports the need for a targeted intervention.